Dairy Situation

Economic Research Service

U.S. Department of Agriculture

DS-368

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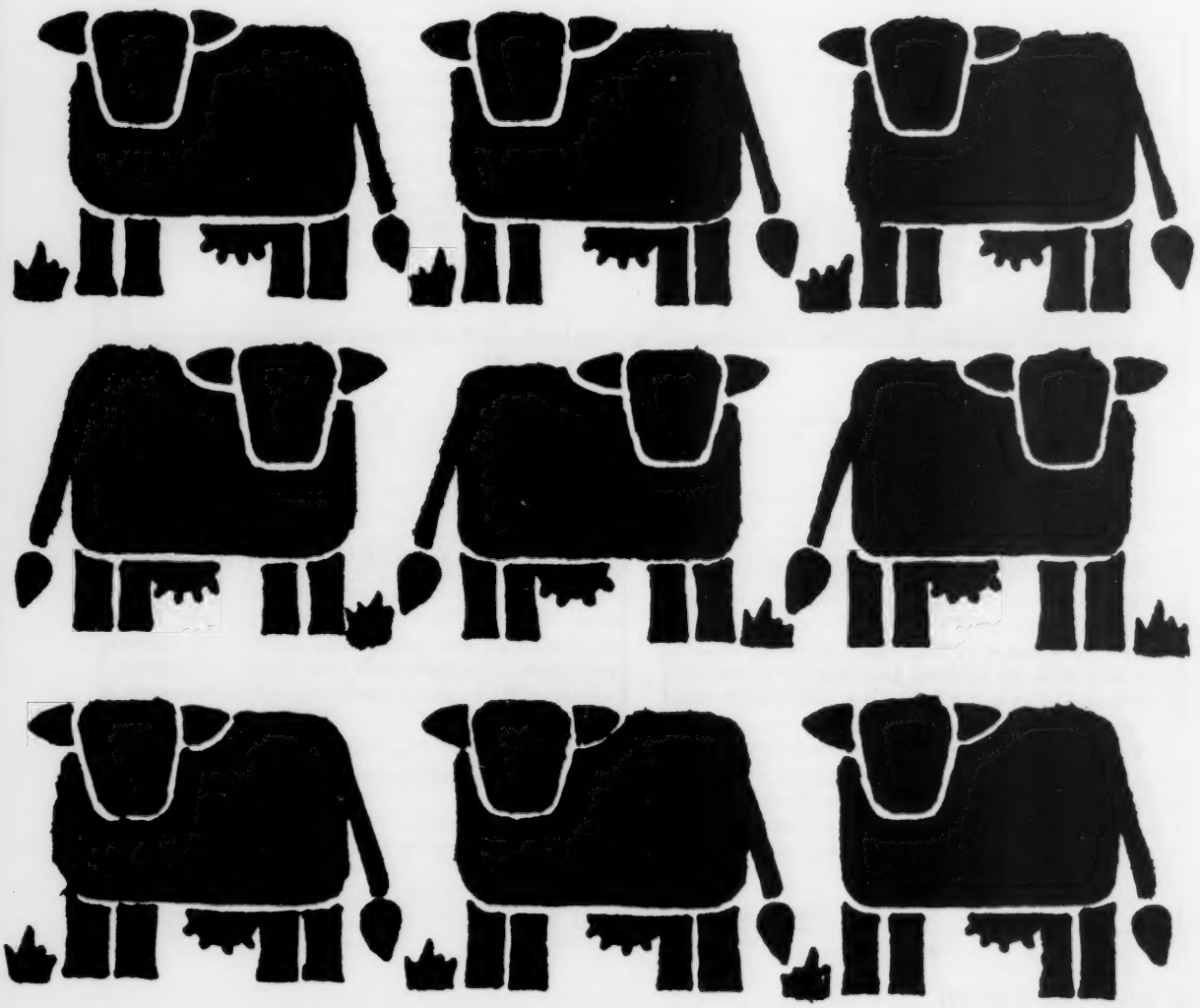
Approved by the World Food and Agricultural Outlook and Situation Board



CURRENT SITUATION CHARTS

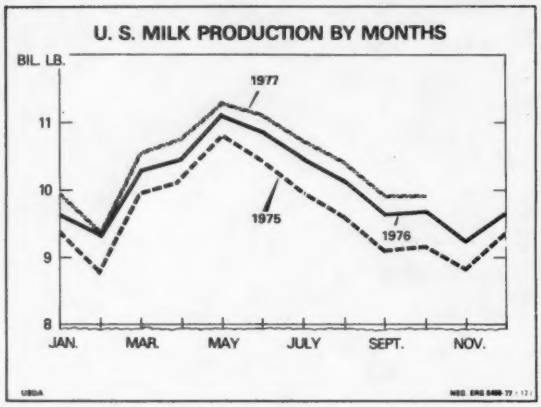


Figure 1

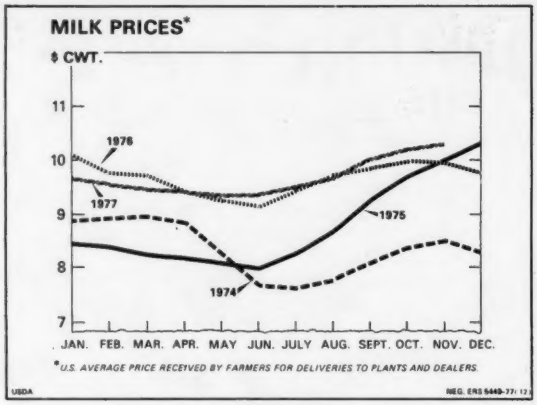
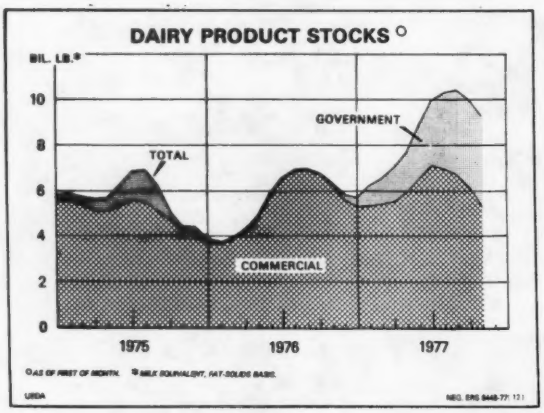


Figure 2



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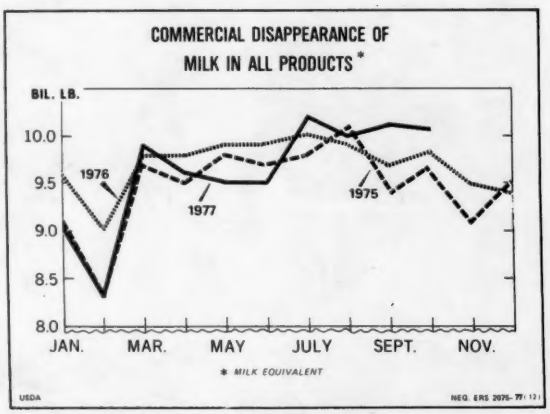

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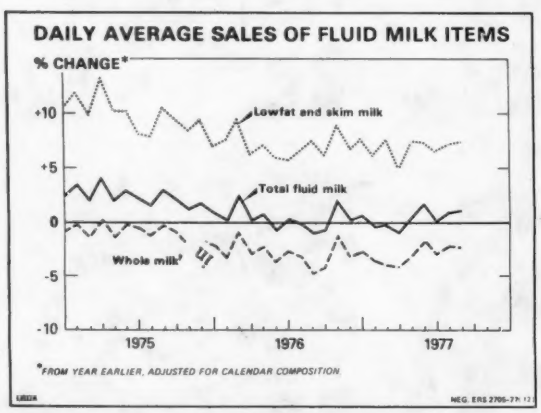
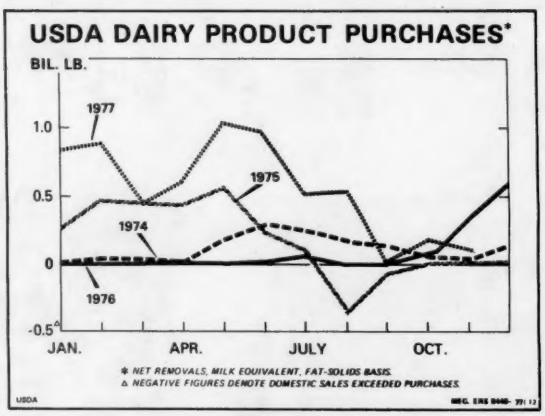


Figure 5



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Approved by the World Food and Agricultural Outlook and Situation Board

SUMMARY

Government purchases under the price support program probably will become heavy again in coming months as milk output increases seasonally. The current support price will assure farmers of milk prices above a year earlier, while the very large feed supplies probably will result in lower average feed prices. These favorable milk-feed price relationships likely will keep production well above a year earlier during the first half of 1978. While a small increase in commercial use is expected, this level of output would lead to heavy USDA purchases and growing stocks again this winter and spring.

Later in 1978, longer-run influences may start to stabilize milk output. For all of next year, milk production could be 1 to 2 percent above the 1977 total of more than 123 billion pounds. If supply-demand conditions develop as expected in 1978, USDA purchases could be as large or larger than this year.

Milk production in September-October was almost 3 percent above a year ago, as feeding-induced gains in output per cow easily outweighed continued very small declines in milk cow numbers. Favorable milk-feed price relationships in coming months should sustain substantial advances in output per cow.

Higher milk prices, large feed supplies, and large numbers of heifers entering the herd probably will keep declines in milk cow numbers from a year earlier quite small during the first half of

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1978. These declines may quicken slightly later in the year if slaughter cow prices and off-farm opportunities improve as expected.

Even with some seasonal tightening of milk supplies, manufacturing grade milk prices in November were still about a dime per 100 pounds below the support price (when adjusted for fat content). However, the average farm milk price was $10.30 per 100 pounds in November, up 41 cents from a year ago. Farm milk prices will remain above a year earlier throughout 1978.

Total cash receipts from dairying for 1977 could reach a record $11.8 billion, up from $11.4 billion last year and up almost $2 billion from 1975. In early 1978, gross cash income from milk sales likely will be considerably above 1977 as significantly higher milk prices and larger marketings both contribute.

Retail dairy prices have risen at less than the usual seasonal rate in recent months and were just slightly above a year ago in October. However, the increase from a year earlier likely will widen in early 1978, with both higher farm milk prices and higher processing and marketing costs contributing. Retail dairy prices could average 5 to 6 percent higher next year, compared with a 3- to 4-percent rise in 1977.

Butter-powder production continues to be relatively stronger than American cheese output. However, this may start to shift in coming months since cheese stocks have been trimmed and sales have recently strengthened. Output of these products probably will be large in coming months, reflecting the heavy supplies of milk expected to be available for manufacturing.

Commercial use of manufactured dairy products in early fall was considerably stronger than last spring. Commercial use in coming months may show modest gains in view of prospects for relatively stable retail prices and further gains in consumer income.

The combination of seasonally slackening milk output, sales to CCC, and strenghtening commercial use has reduced commercial stocks to levels in line with expected supply-demand conditions. Commercial holdings of both milkfat and milk solids-not-fat on November 1 were down about a sixth from a year ago.

During 1977, price support purchases will total more than 6 billion pounds milk equivalent, the most in any calendar year since 1971 and almost as much as the combined total of the 1973-76 period. With these heavy purchases and only limited donation outlets, CCC uncommitted inventories of butter and cheese on December 1 were the largest on that date since the 1960's, while nonfat dry milk holdings were record-large.

Paced by larger imports of cheese under quota, total dairy imports in August-October were up slightly from a year earlier, as were commercial exports. In Europe this summer, strong increases in milk output were absorbed in commercial channels (aided by consumption subsidies) as month-to-month changes in intervention stocks about matched those of a year ago.

DAIRY SITUATION

SITUATION AND OUTLOOK

PRODUCTION

Early Fall Milk Output Largest Ever

An almost 3-percent rise in September-October milk production brought output to a record level for these months. The record was easily attained, due in part to diminished seasonality compared with earlier years (table 1). Milk output has been sharply boosted by the combination of fairly high milk prices, resulting from the current support price, and lower feed prices.

U.S. milk production

Month	1976	1977	Change
	Million pounds		*Percent*
January	9,607	9,910	+3.2
February	9,308	9,351	[1] +4.1
March	10,302	10,562	+2.5
April	10,480	10,741	+2.5
May	11,108	11,295	+1.7
June	10,816	11,103	+2.7
July	10,453	10,715	+2.5
August	10,112	10,410	+2.9
September	9,616	9,907	+3.0
October	9,643	9,902	+2.7
November	9,233		
December	9,678		
Total	120,356		

[1] On a daily average basis.

Very strong gains in output per cow continued to provide the major impetus. The very favorable milk-feed price relationships have resulted in heavy concentrate feeding and 3½-percent increases in output per cow from a year ago. The seasonal decline in production per cow was relatively quite small for the second year in a row.

After rising just slightly during June-September, milk cow numbers started to decline again in October. The year-to-year decline has held at about a half percent throughout 1977. The favorable conditions for milk output and the continued large heifer replacement herd have been the primary factors holding these declines to relatively small levels. Although slaughter cow prices were higher than a year ago in early fall, they were not high enough to stimulate sharper drops. Other economic alternatives have continued to entice some producers away from dairying, but this has been largely offset by the expansion of remaining herds.

Utility cow prices, Omaha

Month	1975	1976	1977
		Dollars per cwt.	
January	16.82	23.26	22.95
February	18.18	25.90	23.88
March	19.45	27.45	26.67
April	21.67	30.72	27.63
May	23.55	30.24	26.57
June	23.32	27.47	25.64
July	22.00	25.80	25.23
August	21.29	25.10	25.38
September	22.45	22.90	26.12
October	22.01	22.72	24.89
November	20.73	20.59	23.80
December	21.64	21.60	
Average	21.09	25.31	

Most of the country shared the strong milk production gains in September-October. The only exceptions to the general pattern of 2- to 4-percent rises from a year earlier were the small decline in the Southeast, steady output in the Mountain States, and only a small increase in the Delta States. All of the 5 major dairy States posted strong gains.

This year's total milk production probably will be slightly more than 123 billion pounds, up about 3 billion pounds from 1976—compared with a 5-billion-pound boost last year. This would be the most production in any year since 1965.

Production Increases To Slow In 1978

Since 1973, milk production has generally been responding to sharp changes in milk prices, feed costs, and costs of other production items. Milk production in 1978 may well be influenced by more subtle, longer-run changes in the prospects for dairymen. The higher minimum support level for milk (especially in conjunction with mandatory semiannual adjustments) will assure producers that farm milk prices will not substantially lag rising costs, while it is unlikely that output would fall or demand increase enough to generate prices substantially above support level. The very large 1977 feed crops probably will provide sufficient supplies to moderate the price impacts of a 1978 crop shortfall or an unexpected surge in export demand.

Milk production during the first half of 1978 likely will remain considerably above a year earlier. Many of the factors which shaped this year's rise will continue to boost output. Higher farm milk

Table 1--Milk production and factors affecting supply, United States, selected years, 1955-77

Year	Milk cattle on farms, January 1 1/			Milk cows on farms, average during year	Milk production		Average prices received by farmers per 100 pounds		
	Milk cows and heifers that have calved	Milk cow replacements; heifers 500 pounds and over			Per cow	Total	All milk, wholesale	Milk, eligible for fluid market	Milk manufacturing grade
		Total	Per 100 cows						
	Thou.	Thou.	No.	Thou.	Lb.	Mil. lb.	Dol.	Dol.	Dol.
1955	21,320	6,832	32.0	21,044	5,842	122,945	4.01	4.50	3.15
1960	17,650	5,686	32.2	17,515	7,029	123,109	4.21	4.69	3.25
1965	15,380	4,780	31.1	14,953	8,305	124,180	4.23	4.63	3.34
1966	14,490	4,450	30.7	14,071	8,522	119,912	4.81	5.17	3.97
1967	13,725	4,215	30.7	13,415	8,851	118,732	5.02	5.43	4.06
1968	13,115	4,080	31.1	12,832	9,135	117,225	5.24	5.67	4.22
1969	12,550	3,990	31.8	12,307	9,434	116,108	5.49	5.87	4.45
1970	12,091	3,880	32.1	12,000	9,747	116,962	5.71	6.05	4.70
1971	11,909	3,843	32.3	11,842	10,009	118,532	5.87	6.19	4.86
1972	11,778	3,828	32.5	11,698	10,250	119,904	6.07	6.38	5.08
1973	11,624	3,874	33.3	11,409	10,114	115,385	7.14	7.42	6.20
1974	11,286	3,942	34.9	11,219	10,300	115,553	8.33	8.66	7.13
1975	11,211	4,095	36.5	11,140	10,352	115,326	8.75	9.02	7.63
1976	11,087	3,973	35.8	11,049	10,893	120,356	9.66	9.93	8.56
1977 2/	11,031	3,906	35.4	10,980	11,230	123,300	9.73	9.95	8.70

Year	Dairy ration cost		Milk cow cost		Grain and other concentrates fed to milk cows 3/			Dairy pasture feed condition, as percent of normal	Alfalfa hay prices	
	Value per 100 pounds	Milk-feed price ratio	Price received per head	Milk required to buy a cow	Total fed	Per cow	Per 100 pounds of milk produced		Received by farmers: per ton	Paid by farmers per ton
	Dol.	Lb.	Dol.	Cwt.	Thou. tons	Lb.	Lb.	Pct.	Dol.	Dol.
1955	3.16	1.28	146	36	18,664	1,758	30.1	77	22.00	33.70
1960	2.92	1.45	223	53	19,821	2,259	32.2	82	21.00	31.60
1961	2.92	1.45	224	53	20,916	2,404	33.2	84	21.00	30.90
1962	2.95	1.40	221	54	21,617	2,533	34.3	80	21.40	30.60
1963	3.04	1.36	215	52	21,858	2,646	35.1	73	23.50	32.90
1964	3.03	1.38	209	50	22,464	2,800	35.9	73	24.00	32.60
1965	3.03	1.40	212	50	22,827	2,953	36.7	80	24.00	33.00
1966	3.15	1.53	246	51	22,569	3,000	37.6	78	24.70	33.40
1967	3.23	1.56	260	52	22,790	3,374	38.3	80	23.60	34.08
1968	3.10	1.70	274	52	22,886	3,519	39.1	83	23.00	32.94
1969	3.15	1.75	300	55	23,615	3,726	40.7	82	23.90	34.08
1970	3.28	1.74	332	58	24,870	3,979	42.4	81	24.70	34.69
1971	3.44	1.71	358	61	25,107	4,070	42.4	79	27.10	37.57
1972	3.52	1.73	397	65	25,162	4,298	41.9	80	31.45	40.15
1973	4.88	1.46	496	69	25,042	4,389	43.4	83	41.55	51.65
1974	6.23	1.34	500	60	24,586	4,384	42.6	75	52.58	63.58
1975	6.25	1.40	412	47	24,274	4,357	42.1	79	54.38	66.18
1976 1/	6.30	1.53	477	49	25,083	4,545	41.7	70	60.81	72.16
1977 2/	6.10	1.60	503	49	---	---	---	72	60.50	74.25

1/ Prior to 1965, estimated by Livestock Section, ERS.
2/ Estimated or preliminary.
3/ On farms where milk or cream was sold. Beginning 1966, data are for all farms where milk was produced.

prices and lower feed prices than in early 1977 probably will result in further substantial increases in concentrate feeding and milk production per cow. The relatively high ratio of replacement heifers entering the herd and the expected absence of incentives to accelerate herd culling likely will hold the year-to-year decline in cow numbers to relatively low levels.

Later in 1978, milk production will depend on cull cow prices, the attractiveness of off-farm employment opportunities, and the ability of milk prices to keep pace with rises in production costs, as well as 1978 feed crop prospects. The liquidation of the beef cow herd probably will end in 1978 and slaughter cow prices could well average higher. If the general economy continues to expand, off-farm employment might be more attractive than in recent years. Combined with a possible slowing in the expansion rate of remaining dairymen, these factors could result in slightly sharper declines in milk cow numbers. In addition, the boosts in concentrate feeding could slow somewhat from the sharp increases of 1976 and 1977. The support level for milk on October 1, 1978 could be set as low as 80 percent of parity. All in all, milk production during the second half of 1978 likely will show a more typical seasonal decline than in 1976 (when output strengthened due to sharply rising milk prices) or 1977 (when output responded to falling feed prices).

Although these influences will tend to stabilize or possibly weaken milk production, reaction to them likely will appear slowly and output probably will remain heavy throughout next year. In light of the expected strong increases in production during the first half and the fairly favorable expected milk-feed price relationships throughout the year, milk output in 1978 could rise 1 to 2 percent from this year.

Lower Average Feed Prices Expected

Although currently somewhat higher than the very low October levels, prices of major feed ingredients likely will average lower than a year earlier during the current crop marketing year. Farmers are expected to harvest record crops of almost 6.4 billion bushels of corn and almost 1.7 billion bushels of soybeans. During this crop year, stocks of corn and soybeans are expected to rise and this will help to diminish the price impacts of any unexpected developments next year.

Farmers paid an average $129 per ton for 16-percent protein dairy ration in November, down $14 from a year ago. This fall's mixed feed prices were the lowest since the summer of 1974.

The milk-feed price ratio was almost 1.8 in November, up sharply from 1.6 a year ago but slightly below October (figure 7). The October reading was the highest since late 1971. Similarly, the difference in value between 100 pounds of milk and 100 pounds of concentrate ration stood at $4.47 in November, up about 80 cents from a year earlier.

Milk-feed price ratio[1]

Month	1975	1976	1977
	Pounds		
January	1.25	1.65	1.52
February	1.30	1.58	1.48
March	1.33	1.58	1.47
April	1.31	1.53	1.46
May	1.30	1.49	1.43
June	1.30	1.43	1.49
July	1.34	1.44	1.57
August	1.36	1.50	1.69
September	1.48	1.51	1.80
October	1.56	1.56	1.84
November	1.66	1.60	1.76
December	1.70	1.55	
Average	1.40	1.53	

[1] Pounds of concentrate ration equal in value to 1 pound of milk.

A larger hay crop (with all the increase due to larger alfalfa output) and a smaller herd of beef cattle have combined to bring hay prices down from the very high levels of last fall and winter. Farmers paid an average $67.50 per ton for alfalfa hay in November, down $7.50 from a year ago and about $13 from last winter's peak.

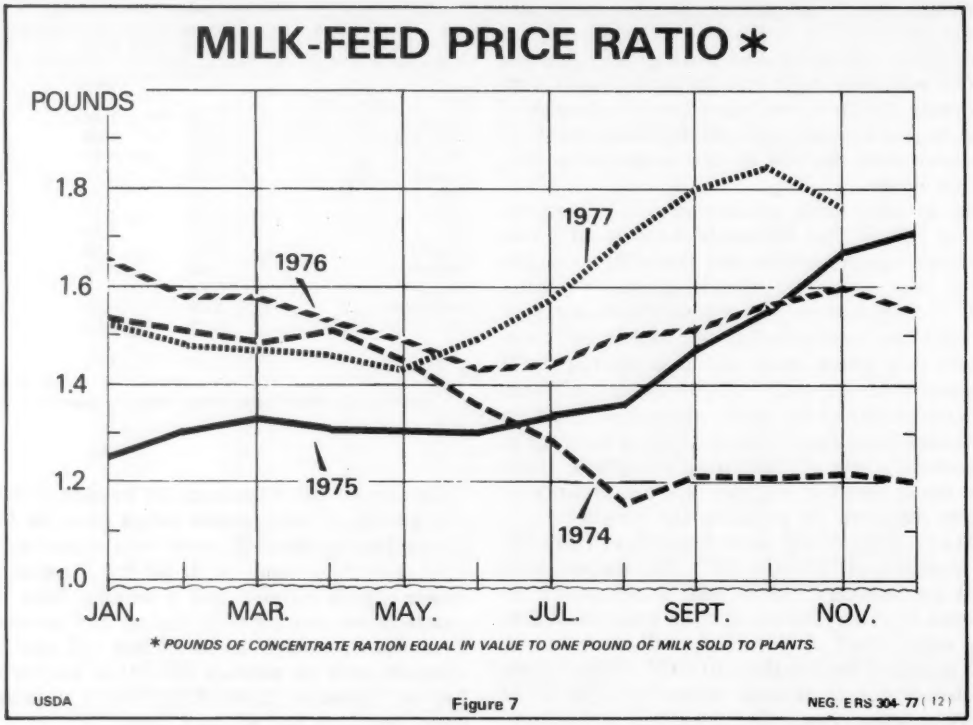
Milk Output Per Man-Hour Jumps

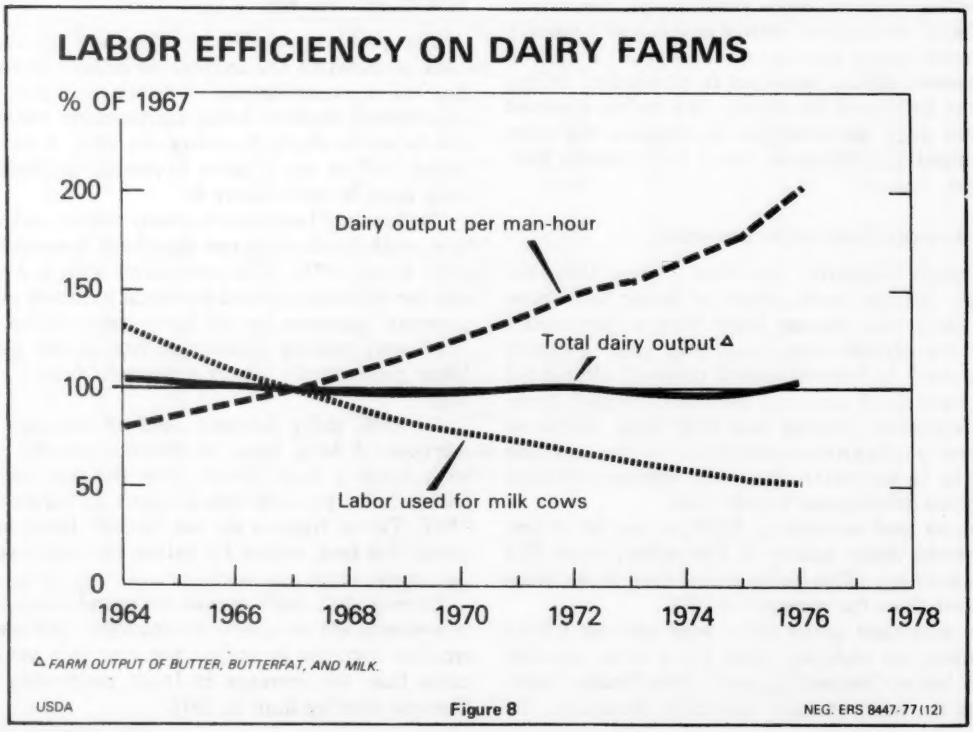
The rising cost of hired labor and the desire to ease somewhat the inflexible nature of dairying has led to capital-intensive techonology and heavy concentrate feeding being increasingly substituted for labor in dairy farming. In 1976, it took only about half as much labor to produce slightly more milk than in 1967 (figure 8).

Reflecting last year's sharp rise in output per cow, milk production per man-hour jumped 13 percent from 1975. This compared with a 9-percent rise for all livestock and livestock products and a 6-percent increase for all farm commodities. Since 1967, only poultry production has posted gains in labor productivity which approach those in dairying.

In 1976, dairy farmers used an average of 7.9 minutes of daily labor to directly care for a milk cow, down a half minute from the previous year. Direct labor per cow has dropped 36 percent since 1967. These figures do not include labor used in producing feed, caring for calves and replacements, or general farm overhead.

During 1977, milk output per man-hour probably has continued to rise substantially. However, the smaller increase in output per cow this year indicates that the increase in labor productivity was likewise smaller than in 1976.


MILK-FEED PRICE RATIO *
POUNDS
1.8
1.6
1.4
1.2
1.0
1977
1976
1975
1974
JAN.
MAR.
MAY.
JUL.
SEPT.
NOV.
* POUNDS OF CONCENTRATE RATION EQUAL IN VALUE TO ONE POUND OF MILK SOLD TO PLANTS.
USDA
Figure 7
NEG. ERS 304-77 (12)


LABOR EFFICIENCY ON DAIRY FARMS
% OF 1967
200
150
100
50
0
Dairy output per man-hour
Total dairy output △
Labor used for milk cows
1964
1966
1968
1970
1972
1974
1976
1978
△ FARM OUTPUT OF BUTTER, BUTTERFAT, AND MILK.
USDA
Figure 8
NEG. ERS 8447-77 (12)

PRICES AND INCOME

Farm Milk Prices Well Above 1976

Farm milk prices have averaged slightly above year-earlier levels since last spring, after running below during the first quarter of the year. Heavy supplies of milk and dairy products and sluggish sales have limited seasonal rises in farm milk prices. Farmers received an average $10.30 per 100 pounds of milk in November, up 96 cents from May and 41 cents above a year ago.

Milk prices received by farmers

Month	All sold to plants			Manufacturing grade		
	1975	1976	1977	1975	1976	1977
	Dollars per 100 pounds					
January	8.43	10.10	9.65	6.97	9.04	8.48
February	8.38	9.76	9.54	7.02	8.42	8.41
March	8.22	9.75	9.43	7.03	8.49	8.46
April	8.18	9.40	9.43	7.06	8.45	8.66
May	8.07	9.25	9.34	7.07	8.33	8.60
June	7.99	9.14	9.38	7.09	8.32	8.55
July	8.25	9.43	9.50	7.27	8.62	8.58
August	8.64	9.70	9.69	7.63	8.89	8.64
September	9.25	9.84	10.00	8.25	8.65	8.83
October	9.70	9.96	10.20	8.77	8.54	8.99
November	10.00	9.89	10.30	9.01	8.54	9.07
December	10.30	9.72		9.30	8.53	
Average	8.75	9.66		7.63	8.56	

Manufacturing grade milk prices continued to increase in November and averaged $9.07 per 100 pounds, up 53 cents from a year ago. Adjusted to annual average fat test, manufacturing grade milk prices were still about a dime below the $9.00 support price in November.

American cheese plants in October paid about 3 cents more than butter-powder plants for milk of equivalent fat test. With wholesale prices expected to continue near support purchase prices, no substantial advantage to either type of operation is expected in coming months.

Minimum Class I prices in Federal order markets will average about $10.89 per 100 pounds (for milk of 3.5 percent milkfat) in January, about a nickel higher than in November and December and up 53 cents from a year earlier. The Minnesota-Wisconsin price (the basic mover of Class I prices in Federal Order Markets) has been fairly stable this summer and fall in contrast to last year's sharp rise and subsequent sharp decline.

Class I prices negotiated by cooperatives in 1977 have resulted in over-order payments that have been relatively stable, particularly when compared to the past few years. The variation during January-December of only 19 cents was considerably less than the 44 cents of 1976 and the 82 and 71 cents, respectively, of 1974 and 1975.

During the first third of the year, the estimated average over-order payment in Federal order markets (which includes charges for services rendered) ranged from 42 to 45 cents per hundredweight. Since then, over-order payments have dropped slightly to a range of 26 to 38 cents. In November, the over-order payment was estimated to be 26 cents and December should be close to that amount. For the entire year, these over-order payments will average close to last year's average of 35 cents.

Although farm milk prices will close out the year well above a year ago, milk prices for all of 1977 likely will average close to $9.70, up only about a nickel from 1976.

Milk Prices To Be Stable

Even with the expected heavy supplies, farm milk prices in early 1978 will average considerably above a year earlier due to the higher support price. On September 30, USDA announced that the support price for manufacturing grade milk will remain at $9.00 per hundredweight for the new marketing year beginning October 1. Under the provisions of the new farm legislation, the $9.00 support price will be adjusted on April 1 to reflect changes in the index of prices paid by farmers.[1] While prices in early 1978 will be higher than a year earlier, they likely will be relatively stable and near the support level.

Prices later in the year will depend largely on milk production and commercial sales of dairy products, but the average for all of 1978 likely will be considerably above 1977.

Larger Output Boosts 1977 Cash Receipts

Cash receipts from dairying were boosted by both slightly higher milk prices and larger marketings during September-October and totaled about 5 percent above a year ago. This increase was slightly larger than the gains posted during the spring and summer when larger marketings accounted for most of the increases. Total cash receipts for 1977 could reach a record $11.8 billion, up from $11.4 billion last year and up almost $2 billion from 1975 (table 2). In early 1978, gross cash income from milk sales likely will be considerably above 1977 as significantly higher milk prices and larger marketings both contribute.

The index of prices paid for production items declined last summer and has risen just slightly since then. This index was less than 4 percent higher than a year ago in October-November but

[1]For a more complete discussion of the dairy provisions of the Food and Agriculture Act of 1977, see DS-367, September 1977, pp. 7-8.

Table 2--Milk marketings and cash receipts, United States, selected years, 1955-77 1/

Year	Milk used on farms where produced	Milk marketed by farmers				Cash receipts from milk marketed by farmers			
		Sold to plants and dealers		Retailed by farmers as milk and cream	Total	Milk sold to plants and dealers	Cream sold to plants and dealers	Retailed by farmers	Total
		As whole milk	As farm separated cream						
	Billion pounds					Billion dollars			
1955	14.6	91.0	14.7	2.7	108.3	3.6	0.3	0.3	4.2
1960	9.2	103.9	7.9	2.1	114.0	4.4	.2	.2	4.8
1965	6.0	112.7	3.7	1.8	118.2	4.8	.1	.2	5.0
1966	5.5	109.7	3.0	1.7	114.4	5.3	.1	.2	5.5
1967	5.2	109.4	2.4	1.8	113.6	5.5	.1	.2	5.7
1968	4.7	108.8	2.0	1.8	112.6	5.7	2/	.2	6.0
1969	4.3	108.5	1.6	1.7	111.8	6.0	2/	.2	6.2
1970	4.0	110.0	1.2	1.7	113.0	6.3	2/	.2	6.5
1971	3.7	112.2	1.0	1.6	114.8	6.6	2/	.2	6.8
1972	3.6	114.0	.8	1.5	116.3	6.9	2/	.2	7.1
1973	3.4	109.8	.7	1.5	112.0	7.8	2/	.2	8.1
1974	3.3	110.3	.4	1.5	112.3	9.2	2/	.2	9.4
1975	3.2	110.2	.3	1.6	112.1	9.6	2/	.2	9.9
1976 3/	3.1	115.5	.3	1.5	117.3	11.2	2/	.3	11.4
1977 4/	3.0	118.6	.2	1.5	120.3	11.5	2/	.3	11.8

1/ Totals may not add due to rounding.
2/ Less than $50 million.
3/ Preliminary.
4/ Estimated.

Table 3 --Manufacturing milk: Comparisons of announced support prices and U.S. average market prices paid to producers, marketing years, 1949-77

Marketing year beginning April 1	Date effective 1/	Manufacturing milk				
		Support level		Average market level		
		Percentage of parity equivalent 2/	Price per 100 pounds	Price per 100 pounds	As a percentage of parity equivalent	
					In month prior to marketing year	Average during marketing year
		Percent	Dollars	Dollars	Percent	Percent
1949 3/		90	3.14	3.14	90	89
1950 4/		81	3.07	3.35	88	85
1951		86	3.60	3.97	94	93
1952		90	3.85	4.00	93	95
1953		89	3.74	3.46	83	84
1954		75	3.15	3.15	75	80
1955		80	3.15	3.19	81	82
1956		82	3.15			
	4/18/56	84	3.25	3.31	86	84
1957		82	3.25	3.28	83	82
1958		75	3.06	3.16	77	77
1959		77	3.06	3.22	81	81
1960		76	3.06			
	9/17/60	80	3.22			
	3/10/61	85	3.40	3.31	83	83
1961		83	3.40	3.38	83	82
1962 5/		75	3.11	3.19	76	76
1963		75	3.14	3.24	77	77
1964		75	3.15	3.30	77	78
1965		75	3.24	3.45	80	79
1966		78	3.50			
	6/30/66	89.5	4.00	4.11	92	90
1967		87	4.00	4.07	88	87
1968		89.4	4.28	4.30	90	87
1969		83	4.28	4.55	88	86
1970		85	4.66	4.76	87	85
1971		85	4.93	4.91	85	82
1972		79	4.93	5.22	84	80
1973	3/15/73	75	5.29			
	8/10/73	80	5.61	6.95	99	91
1974		81	6.57			
	1/ 4/75	89	7.24	6.87	85	78
1975		79	7.24			
	10/ 2/75	84	7.71	8.12	89	84
1976 6/		80	8.13			
	10/ 1/76	81	8.26	8.52	84	82
1977 7/		82	9.00	8/8.78	80	80

1/ If other than April 1. 2/ Except as noted, this is the actual percentage of the parity equivalent price published in March before the marketing year. In some cases the announced percentages, based on forward estimates of parity, were slightly different. 3/ Calendar year. 4/ January 1, 1950-March 31, 1951. 5/ Beginning November 1962, parity equivalent is based on prices for all manufacturing grade milk instead of the "3-product" price for American cheese, evaporated milk, and the butter-nonfat dry milk combination used before. 6/ April-September transition period. 7/ October 1. 8/ Adjusted to the annual average fat test.

Table 4--Dairy products under price support programs, USDA purchase price per pound, 1962-77 1/

Effective date of change	Butter		Nonfat dry milk, extra grade	Natural Cheddar cheese, Grade A or higher
	Grade A or higher			
	Chicago	New York	Spray	
	Cents			
4/01/62	57.966	58.75	14.40	34.60
4/01/63	57.966	58.75	14.40	35.60
4/01/65	58.966	59.75	14.60	36.10
4/01/66	60.966	61.75	16.60	39.30
6/30/66	66.466	67.25	19.60	43.75
4/01/68	2/ 66.442	67.25	23.10	47.00
4/01/69	2/ 67.644	68.50	23.35	48.00
4/01/70	2/ 69.846	70.75	27.20	52.00
4/01/71	67.784	68.75	31.70	54.75
4/01/72	67.708	68.75	31.70	54.75
4/15/73	60.922	62.00	37.50	62.00
8/10/73	60.922	62.00	41.40	65.00
4/01/74	60.570	62.00	56.60	70.75
1/04/75	68.070	69.50	60.60	77.25
4/01/75	69.193	70.75	60.60	79.25
10/2/75	79.693	81.25	62.40	85.00
4/01/76	85.817	87.75	62.40	90.50
10/1/76	90.817	92.75	62.40	92.50
4/01/77 4/	100.710	102.75	68.00	3/ 98.00

1/ Prices for bulk containers--butter, 64 and 68-pound packages; nonfat dry milk, nonfortified in 100-pound bags (50-pound bags since April 1969); and cheese, mostly in 40 and 60-pound blocks. See DS-325, May 1969, table 6 for 1949-61 data. 2/ Prices varied slightly during the year due to changes in freight rates. 3/ 95 cents for barrel cheese. 4/ Remain in effect at the start of the marketing year beginning 10/1/77.

Table 5--Computations of parity equivalents for manufacturing milk, per 100 pounds, marketing years, 1962-77 1/

Marketing year beginning in: 2/	Base period 3/			Adjusted base price 6/	Parity 4/		
	All milk wholesale	Manufacturing grade milk 5/	Ratio		Index (1910-14=100)	Prices	
						All milk wholesale	Equivalent of manufacturing milk
	Dollars	Dollars	Percent	Dollars		Dollars	Dollars
1962	4.25	3.36	79.1	1.72	305	5.25	4.15
1963	4.17	3.27	78.4	1.72	310	5.35	4.19
1964	4.15	3.24	78.1	1.72	313	5.38	4.20
1965	4.17	3.25	77.9	1.74	318	3.53	4.31
1966	4.19	3.27	78.0	1.73	331	5.73	4.47
1967	4.25	3.34	78.6	1.73	340	5.88	4.62
1968	4.33	3.42	79.0	1.73	350	6.06	4.79
1969	4.44	3.52	79.3	1.76	369	6.49	5.15
1970	4.57	3.65	79.9	1.78	386	6.87	5.49
1971	4.73	3.79	80.3	1.79	405	7.21	5.79
1972	4.89	3.94	80.6	1.82	423	7.70	6.21
1973	5.09	4.13	81.1	1.83	473	8.64	7.01
1974	5.39	4.43	82.2	1.80	549	9.88	8.12
1975	5.81	4.83	83.1	1.80	612	11.00	9.14
1976	6.26	5.26	84.0	1.82	664	12.10	10.16
1977 7/	6.75	5.72	84.7	1.88	685	12.90	10.93

1/ See DS-325, May 1969, table 7 for 1948-61. 2/ Marketing year began on April 1 until shifted to October 1 in 1977. 3/ For the 10 calendar years immediately preceding. 4/ From March issues of Agricultural Prices. 5/ Prior to November 1962, the "3-product" price series was used. 6/ 120-month average of farm prices for all wholesale milk divided by 120-month average of the Index of Prices Received by Farmers (both adjusted for supplemental payments), ending with December of previous year. Actual price received during 1910-14 was $1.61. 7/ Computations were identical on both April 1 and October 1.

was still down 3 percent from May. Dairy concentrate prices held well below a year earlier in October-November and hay prices were well below last year's record-high levels. With relatively small increases expected in prices of production items, and both higher milk prices and larger marketings expected, net incomes to dairy enterprises likely will continue to be more favorable than a year earlier during the next several months.

Start of Marketing Year Moved To October 1

On September 30, the milk marketing year was changed to October 1-September 30, the first change since 1950 when the April 1-March 31 marketing year was established. This change will enable the Secretary to make decisions regarding the level of milk price support when more complete information on prospective feed supplies and prices is available for a full year ahead and should allow dairy producers to make better production decisions as they move into the more expensive barn-feeding season.

When calculating the legal minimum support price, changes in the adjusted base price and base period ratio of manufacturing grade to all milk prices (published each January) will now lag 8 months before being reflected in minimum support prices, instead of a 2-month lag with the marketing year beginning on April 1. In the long run, therefore, minimum support prices (with or without semiannual adjustment) will average slightly lower with a marketing year starting October 1. However, the effect of shifting the start of the marketing year will be just the opposite during 1978-79. The minimum legal support price during April-September 1978 will be $9.00 (82.3 percent of October 1 parity) plus an adjustment representing the change in the parity index between October 1 and April 1. Without the shift, the minimum support level would have been the probably lower level of 80 percent of the April 1, 1978 parity price. The minimum support price during April-September 1979 will be 80 percent of the October 1, 1978 parity price, as adjusted at midyear, instead of 75 percent of the April 1, 1979 parity price if the start of the year had not been shifted.

Wholesale Prices Flat

Although a slight seasonal strengthening has occurred, wholesale butter and cheese prices have remained near the support purchase prices since adjusting to the increased levels effective April 1 (figure 9). Wholesale prices likely will remain near support at least through next year's flush production season.

Grade A butter at Chicago in early December was quoted at almost $1.02 per pound, up about a penny from the support purchase price. For 40-pound blocks of American cheese at Wisconsin assembly points, prices were about 2 cents above the support purchase price while barrel cheese prices remained at about 94 cents per pound. Nonfat dry milk prices continued unchanged at the support purchase price.

Edible dry whey prices in the Central States production area were reported at around 19 cents per pound in early December, more than double the 8-cent price of a year earlier. Whey production was steady at seasonally light levels as cheese output has been lower. Demand has been very good with competition from users of whey for animal feed reportedly still a prime factor.

Lactose prices have continued firm as the demand for dry whey has limited lactose production. Expected higher sugar prices have also helped to strengthen lactose prices. Prices in early December averaged about 25 cents per pound (Eastern area), up 4 cents from mid-September. The casein market remains firm with spot trading activity slightly heavier and some buyers reportedly running low on inventories due to the Longshoremen's strike.

After rising sharply in May, wholesale ice cream prices stabilized this summer and fall and in October were about 5 percent higher than in 1976. Manufacturers' selling prices for evaporated milk averaged $14.07 per case in October, up slightly from a year ago.

The wholesale dairy price index, as reported by the Bureau of Labor Statistics (BLS), stood at 176.9 (1967=100) in November, up 5 percent from a year ago. This index probably will hold fairly stable in the next few months.

Slight Rises In Retail Prices

Retail prices of milk and dairy products leveled off in early summer before increasing slightly in recent months. They rose by less than 3 percent between April and October this year and probably will increase slightly further in coming months. The BLS index of retail dairy prices stood at 176.2 (1967=100) in October, up about 2 percent from a year earlier. Meanwhile, the retail price index for all food items was up 7 percent from last year and the Consumer Price Index for all items was up 6½ percent.

For all of 1977, prices of milk and dairy products in the grocery store likely averaged only 3 to 4 percent above 1976. However, the increase from a year earlier likely will widen slightly in early 1978 as both farm milk prices and marketing costs will be higher. The average for all of next year could be 5 to 6 percent above this year.

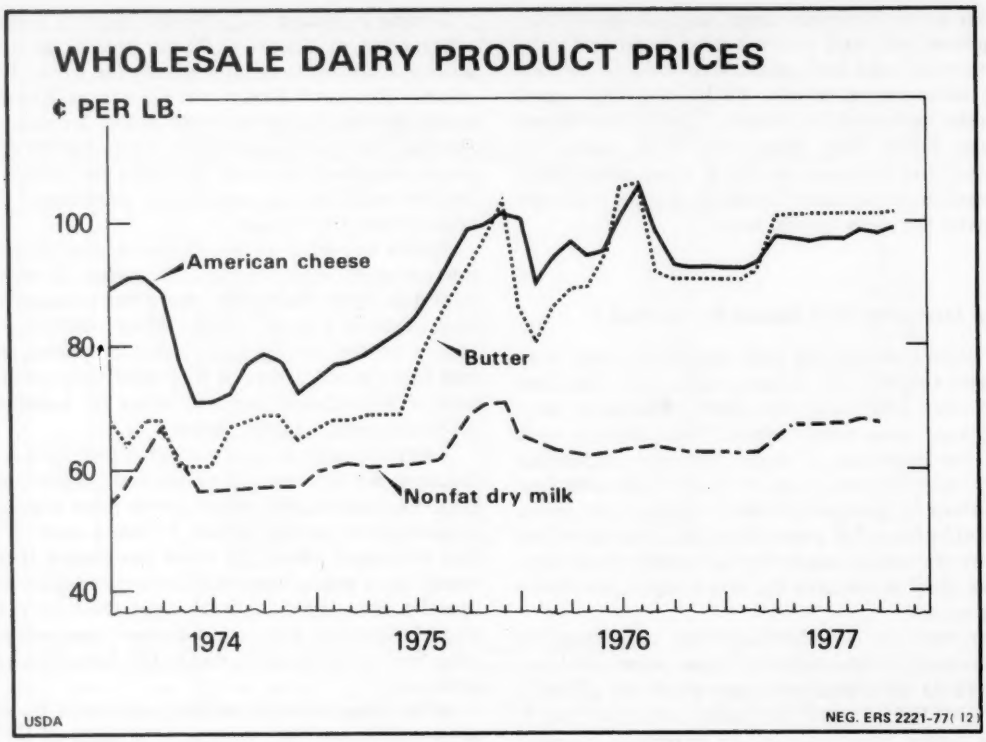


Figure 9

Retail dairy product prices

Item	Unit	Oct. 1975	Oct. 1976	March 1977	Oct. 1977
All dairy products	1967=100	159.4	172.7	171.2	176.2
Butter	c/lb.	114.6	131.0	127.4	136.5
Processed American cheese	c/½-lb.	80.6	88.2	84.3	87.2
Ice cream	c/½-gal.	123.3	130.2	131.2	138.6
Whole milk: At stores	c/½-gal.	78.7	84.3	83.5	84.5
Evaporated milk	c/can	31.0	34.7	35.2	37.2
Skim milk: At stores	c/qt.	42.8	45.5	45.6	46.4

Fluid milk prices at retail have been stable all year and, at 84½ cents per half gallon in October, were about the same as a year earlier (figure 10). Retail ice cream prices rose during September-October and were up over 6 percent from a year earlier in October. Some further increases could occur in coming months if expected higher sugar prices materialize.

Consumers paid almost $1.37 for a pound of butter in October, up 5½ cents from the declining 1976 prices. At the same time, margarine prices were down slightly from August and September but were still almost 7 cents above year-earlier levels. The price difference between the two products is likely to remain wide in coming months.

The retail prices of processed American cheese increased slightly in October but remained about 2 cents per pound below last October's record-high levels. Retail cheese prices may strengthen slightly in coming months if demand increases as a result of increased purchasing power by consumers.

During the third quarter, the farm-retail spread for dairy products in the market basket of farm foods slipped slightly from this spring. However, the farm-retail spread was up almost 6 percent from the 1976 level. Meanwhile, the farm value was up less than 1 percent from a year ago and the retail value was about 3 percent higher. The farmer's share of the retail dollar rose to 51 cents during July-September, up from 50 cents this spring but down a penny from last year's unusually high level.

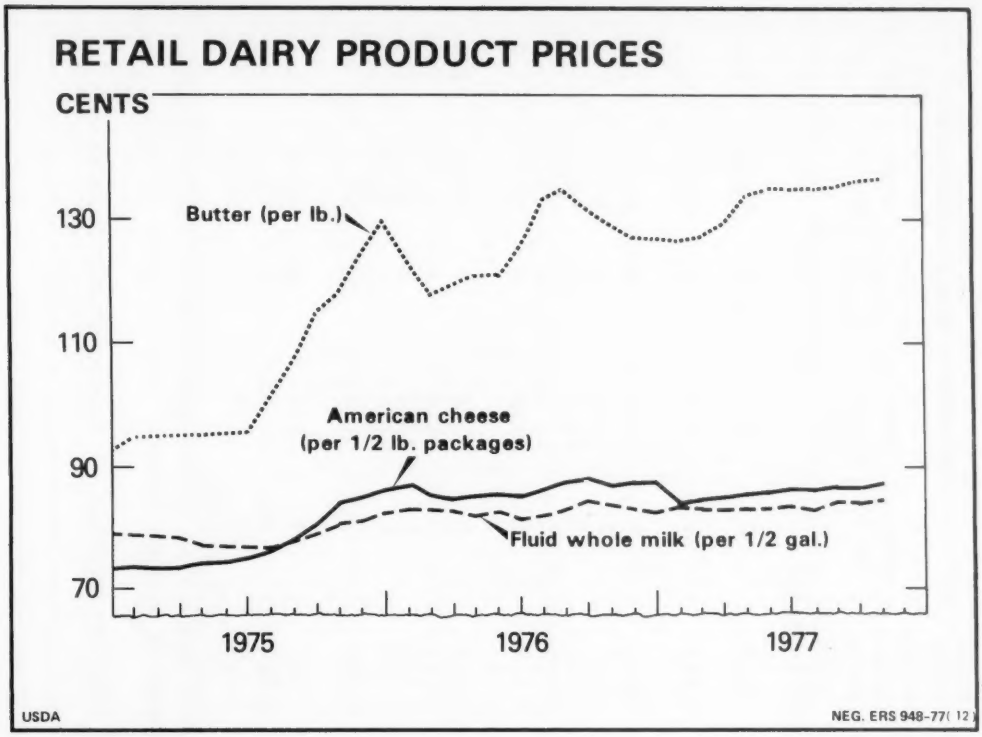


Figure 10

UTILIZATION

Milk Used For Manufacturing Up Slightly

Supplies of milk available for manufacturing were up about 3 percent from a year ago in September-October, a slightly larger rise than in late spring and early summer. Although up only modestly from last year, the amount of milk going into manufacturing was still very heavy and was over an eighth more than in 1975 (table 6). In coming months, supplies of milk available for manufacturing probably will remain heavy, reflecting the substantial expected increases in milk output and only small expected rises in fluid sales.

Larger spot shipments of milk from Wisconsin have helped to limit the rises in manufactured product output. Increased demand to round out local fluid milk supplies (especially in the East North Central States) pulled Wisconsin out-of-State shipments well above a year ago in September-November, although they were considerably below the high levels of late 1975.

The diversion of milk from cheese into butter-powder operations has continued, although at a somewhat abated pace. The increase in butter output from a year earlier fell from 20 percent in August to only 9 percent in October and weekly estimates indicate some further slipping in November. Similarly, the rise in nonfat dry milk production fell from 40 percent in September to only 27

Production of selected manufactured dairy products, 1976-77

Item	January-October		Change from year earlier	
	1976	1977[1]	1976	1977[1]
	Million pounds		*Percent*	
Butter	808.5	922.5	-3.3	+14.1
Cheese:				
American	1,746.6	1,741.9	+24.4	-.3
Other	1,052.0	1,078.5	+10.0	+2.5
Cottage, creamed	743.4	747.3	+1.1	+.5
Canned milk	784.1	703.6	+.1	-10.3
Dry whole milk	67.9	58.8	+33.7	-13.3
Ice cream (Mil. gal.)	705.8	695.3	-2.2	-1.5
Milk equivalent[2]	54,043	56,274	+6.8	+4.1
Nonfat dry milk	798.6	961.8	-9.7	+20.4

[1] Preliminary. [2] Total all reported manufactured products.

Table 6 --Utilization of milk supply, United States, selected years, 1955-77 1/

Year	Fluid	Creamery butter, net	Cheese			Evaporated and condensed whole milk	Dry whole milk	Frozen dairy products, net	Other factory products	Total factory products 2/	Miscellaneous 3/
			American	Other	Creamed cottage						
	Billion pounds										
1955	49.1	28.0	10.1	3.5	4/	6.3	.8	8.2	1.2	58.0	1.2
1960	53.0	29.4	9.7	3.7	1.0	5.5	.7	9.5	.4	59.8	1.2
1965	55.4	28.5	11.5	4.3	1.0	4.6	.7	10.6	.6	61.8	1.2
1966	55.4	23.7	12.2	4.5	1.0	4.7	.7	10.5	.6	57.9	2.5
1967	54.0	26.1	12.7	4.5	1.0	4.0	.5	10.5	.3	59.8	1.2
1968	53.7	24.9	12.7	4.7	1.1	3.9	.6	11.0	.4	59.2	-.2
1969	52.8	23.7	12.7	4.9	1.2	3.9	.5	11.0	.4	58.3	1.0
1970	52.0	23.9	14.3	5.3	1.2	3.3	.5	11.1	.4	60.0	1.5
1971	51.8	23.9	15.1	5.8	1.3	3.2	.5	11.0	.6	61.5	1.7
1972	53.2	22.8	16.3	6.4	1.3	3.1	.6	11.0	.8	62.2	1.1
1973	52.4	18.6	16.8	6.8	1.1	2.9	.6	11.1	.7	58.7	1.8
1974	50.5	19.3	18.6	7.1	1.0	2.8	.5	11.2	.8	61.3	.6
1975	50.8	19.8	16.5	7.4	1.0	2.7	.5	11.8	.6	60.4	1.2
1976 5/	51.2	19.4	20.7	8.1	1.1	2.6	.6	11.6	.7	64.7	1.6
1977 6/	50.2	21.9	20.4	8.6	1.1	2.5	.5	11.6	.7	67.3	2.8

1/ Total supply includes milk marketed by farmers, net imports of ingredients such as frozen cream, "ice cream", and butterfat-sugar mixtures, and net changes in storage cream.

2/ May not add due to rounding.

3/ Residual, including miscellaneous minor uses and any inaccuracies of independently determined use items.

4/ Included in other factory products.

5/ Preliminary.

6/ Estimated.

Table 7--Commercial disappearance: Total milk, annual and by quarters, 1975-77 1/

Item	1975	1976					1977 2/				
		By quarters				Annual	By quarters				Annual
		1st	2nd	3rd	4th		1st	2nd	3rd	4th	
	Billion pounds										
Production	115.3	29.2	32.4	30.2	28.6	120.4	29.8	33.1	31.0		
Farm use	3.2	.8	.8	.8	.8	3.1	.7	.7	.7		
Marketings	112.1	28.4	31.6	29.4	27.8	117.3	29.1	32.4	30.3		
Beginning commercial stocks	5.6	3.7	4.2	6.5	6.7	3.7	5.3	5.5	7.1		
Imports	1.7	.4	.4	.4	.7	1.9	.5	.4	.4		
Total supply	119.4	32.5	36.2	36.3	35.2	122.9	34.9	38.3	37.8		
Ending commercial stocks	3.7	4.2	6.5	6.7	5.3	5.3	5.5	7.1	6.0		
Net removals	2.0	4/	.1	.1	1.1	1.2	2.1	2.6	1.1		
Commercial disappearance											
Actual	113.6	28.3	29.6	29.6	28.8	116.4	27.2	28.6	30.7		
Percent change 3/	+.5 5/	+3.6	+5.8	+1.0	+2.0	+2.5 5/	-3.0	-3.4	+3.7		

1/ Milk equivalent, fat solids basis. Totals may not add due to rounding. 2/ Preliminary. 3/ From year earlier using unrounded data. 4/ Less than 50 million pounds. 5/ On a daily average basis.

Table 8--Commercial disappearance: Selected dairy products, United States, annual 1968-76, by quarters, 1976-77

Year and quarter	Butter 1/	Cheese		Nonfat dry milk	Canned milk	Frozen products 3/
		American 2/	Other			
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. gal.
1968	976.0	1,213.3	803.0	1,058.0	1,496.8	1,082.3
1969	921.9	1,281.0	861.6	1,042.1	1,376.1	1,092.2
1970	898.2	1,398.0	909.1	983.2	1,213.8	1,097.3
1971	847.1	1,454.8	987.0	981.8	1,186.9	1,102.4
1972	885.4	1,595.7	1,127.8	919.2	1,102.6	1,108.6
1973	855.6	1,677.1	1,210.2	1,110.1	1,056.7	1,118.6
1974	929.9	1,780.6	1,276.5	809.9	999.5	1,128.0
1975	951.0	1,717.1	1,331.9	697.0	923.9	1,183.9
1976	919.0	1,934.5	1,460.7	724.0	862.4	1,152.7
1976-1st	246.8	463.5	337.2	181.8	222.9	253.4
2nd	213.9	493.1	359.7	194.1	204.8	326.2
3rd	211.5	479.9	367.3	199.1	206.2	340.5
4th	246.7	498.1	396.4	149.0	228.5	232.7
1977-1st	209.5	461.4	350.0	198.2	200.7	246.8
2nd	169.4	481.8	367.3	133.7	179.8	323.1
3rd	236.1	476.7	374.4	170.0	180.9	345.7
4th						
	1976-77 percent change					
	Percent					
1st 4/	-14.2	+.7	+4.9	+10.3	-9.1	-1.6
2nd	-20.8	-2.3	+2.1	-31.1	-12.2	-1.0
3rd	+11.6	-.7	+1.9	-14.6	-12.3	+1.5
4th						

1/ Imports include butter equivalent of butteroil. 2/ Imports include Colby cheese; stocks do not include processed cheese. 3/ Excludes Mellorine. 4/ On a daily average basis.

Wisconsin out-of-state milk shipments

Month	1976		1977	
	Loads	Volume	Loads	Volume
	Number	*Thousand pounds*	*Number*	*Thousand pounds*
January	475	22,325	206	9,682
February	176	8,272	163	7,661
March	67	3,149	59	2,773
April	20	940	6	282
May	39	1,833	1	47
June	30	1,410	28	1,316
July	27	1,269	85	3,995
August	42	1,974	40	1,880
September	293	13,771	491	23,077
October	192	9,024	347	16,309
November	283	13,301	396	18,612
December	214	10,058		
Total	1,858	87,326		

percent in October. Meanwhile, American cheese output in October recovered to within 4 percent of last year, the closest it has been since June, and production of other varieties posted small gains.

The major reasons for the relative shift toward butter-powder production have been the large summer stocks of American cheese and the relative ease of clearing surplus milk to the government as butter and nonfat dry milk. With the recent jump in commercial use of American cheese and the return of commercial stocks to fairly comfortable levels, American cheese output in coming months may take a relatively larger proportion of milk for manufacturing.

Among other products, early fall output of canned milk and dry whole milk was slightly below 1976. The reduction in cheese output had caused a similar reduction in production of whey products. However, the recent high prices for whey products are providing a stimulus for somewhat greater utilization of liquid whey.

Commercial Use Strengthening

Total commercial use of milk and dairy products in 1977 may be close to or slightly below 1976's 116.4 billion pounds. After a very weak first half of 1977, commercial use strengthened considerably this summer and early fall (table 7). Several factors suggest that this strength will continue. Retail dairy prices likely will post only a moderate increase next year for the second year in a row. Continued growth in consumer purchasing power probably will help, especially for cheese. In addition, early 1977 sales probably were reduced by weather disruptions and the impact of high energy costs on consumers' discretionary income. All in all, total commercial use next year likely will post a small increase but a sharp rise is not anticipated.

Total commercial use of milk and dairy products surged 6 percent above a year earlier in September-October, as sales of most dairy products were substantially stronger than last spring. The recovery in sales of butter was especially pronounced; butter use went from a drop of a fifth from a year ago this spring to a 14-percent increase in August-September, followed by a level about the same as last year in October. During late summer, butter prices at retail were just slightly above a year earlier while margarine prices were up about a fifth. This undoubtedly helped commercial disappearance of butter (table 8).

Changes in dairy sales from year earlier

Item	Change		
	Jan.-Mar.[1]	Apr.-June	July-Oct.
	Percent		
Total milk[2]	-3.0	-3.4	+4.0
Manufactured products:			
American cheese	+.7	-2.3	+4.0
Other cheese	+4.9	+2.1	+2.6
Cottage cheese[3]	+.7	+1.0	+.1
Butter	-14.2	-20.8	+8.4
Ice cream	-3.5	-2.7	+.7
Ice milk	+.8	+3.8	+4.5
Canned milk	-9.1	-12.2	-6.8
Nonfat dry milk	+10.3	-31.1	-6.7
Fluid products:	+.1	+.3	+.5
Whole milk	-3.5	-3.0	+2.9
Skim and lowfat milk	+6.9	+6.6	+6.7
Cream and mixtures	-6.2	-2.0	[4]-2.6

[1] On a daily average basis. [2] On a milk equivalent, fat-solids basis. [3] Creamed and low-fat. [4] July-Sept.

Commercial disappearance of American cheese also picked up sharply, after trailing 1976 during the first 8 months of this year. Retail prices below a year ago and continued growth in consumer incomes helped (table 9). Sales of other varieties posted small increases during September-October, as they had during most of 1977.

Even commercial disappearance of nonfat dry milk, which had been very weak during January-August, managed to show gains in September-October. However, these sales were still very weak relative to earlier years, as substitutes have generally retained their portions of the former market for nonfat dry milk.

Among other products, sales of canned milk were up slightly in September-October while use of cottage cheese was about the same as a year ago. Ice milk and sherbet were used in larger amounts while ice cream sales were about the same.

Although the year-to-year increases in retail fluid milk prices have been quite small in recent months and far outpaced by those of other nonalcoholic beverages, fluid milk sales have

Table 9--Factors influencing and indicative of the demand for milk and dairy products, United States, selected years, 1960-77

Year	Total population July 1 (including Armed Forces overseas)	Total civilian employment	Per capita disposable income		Civilian per capita disappearance				
			Actual	Deflated by consumer price index 3/	Milk equivalent		Milk solids		Margarine
					Fat-solids basis	Calcium content basis	Milk-fat	Solids-not-fat*	
	Million	Million	Dollars	Dollars	Pounds	Pounds	Pounds	Pounds	Pounds
1960	180.7	65.8	1,934	2,180	653	512	24.5	41.4	9.4
1965	194.3	71.1	2,430	2,571	620	505	22.9	40.6	9.9
1966	196.6	72.9	2,597	2,672	604	503	22.3	40.3	10.5
1967	198.7	74.4	2,740	2,740	581	494	21.4	39.5	10.5
1968	200.7	75.9	2,930	2,812	577	499	21.2	39.7	10.8
1969	202.7	77.9	3,111	2,833	569	497	20.9	39.6	10.8
1970	204.9	78.6	3,348	2,879	561	486	20.6	39.8	11.0
1971	207.0	79.1	3,588	2,958	558	490	20.5	39.8	11.1
1972	208.8	81.7	3,837	3,062	561	479	20.6	39.6	11.3
1973	210.4	84.4	4,285	3,219	554	477	20.3	39.8	11.3
1974	211.9	85.9	4,646	3,146	543	471	20.0	38.2	11.3
1975	213.5	84.8	5,077	3,150	546	469	20.1	37.9	11.2
1976 2/	215.1	87.5	5,511	3,232	548	488	20.2	39.1	12.2
1977 2/	216.8	4/90.4	6,020	3,331	554	484	20.3	38.8	11.7

	Average retail prices, BLS index, 1967=100								
	Consumer price	All foods	Dairy products	Fluid milk, grocery	Butter	Cheese, American process	Ice cream	Evaporated milk	Margarine, colored
1960	88.7	88.0	88.4	91.1	86.7	76.2	100.7	89.7	88.6
1965	94.5	94.4	90.0	90.3	89.4	85.5	95.4	89.7	97.2
1966	97.2	99.1	95.8	96.1	97.3	95.8	97.6	94.2	99.7
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.2	103.6	103.3	104.1	100.8	102.1	99.8	102.0	98.6
1969	109.8	108.9	106.7	107.0	102.1	107.7	100.5	105.2	98.3
1970	116.3	114.9	111.8	111.6	104.5	115.6	104.8	111.9	106.0
1971	121.3	118.4	115.3	114.6	105.8	121.0	106.2	118.6	116.0
1972	125.3	123.5	117.1	116.3	105.3	124.7	106.5	120.0	117.6
1973	133.1	141.4	127.9	127.3	110.7	138.5	113.1	134.3	133.4
1974	147.7	161.7	151.9	152.5	114.1	167.9	133.3	172.2	204.9
1975	161.2	175.4	156.6	152.7	124.2	175.8	151.6	183.9	224.6
1976	170.5	180.8	169.3	160.7	153.1	198.6	158.6	204.8	188.3
1977 5/	180.7	191.5	173.3	162.1	160.6	203.8	166.3	216.2	204.2

1/ Includes available data for Alaska and Hawaii beginning 1960.
2/ Preliminary or estimated.
3/ 1967 dollars.
4/ Eleven-month average.
5/ Ten-month average.
*Revised.

Table 10--Milk equivalent: Domestic civilian disappearance, commercial and noncommercial sources, total and per capita, United States, 1955, 1960, and 1965-77

Year	Civilian disappearance					Total military utilization 2/	Consumption excluding donations from USDA supplies		
	Consumed on farms 1/	USDA donations to civilian channels	National School Lunch and Special Milk Programs	Commercial sources	All sources		Civilian	Military	Total
	Million pounds								
1955	11,359	3,102	1,394	98,697	114,552	3,329	111,450	2,627	114,077
1960	6,610	2,040	2,455	105,259	116,364	2,532	114,324	2,228	116,552
1965	3,913	3,593	3,215	107,978	118,699	2,819	115,106	2,387	117,493
1966	3,492	1,129	3,311	108,804	116,736	2,376	115,607	2,376	117,983
1967	3,152	3,113	3,338	103,812	113,415	2,117	110,302	2,117	112,419
1968	2,841	4,114	3,376	103,332	113,663	3,295	109,549	2,186	111,735
1969	2,570	4,545	3,435	102,682	113,232	2,696	108,687	2,051	110,738
1970	2,306	4,187	3,462	103,218	113,173	2,419	108,986	1,788	110,774
1971	2,099	4,526	3,494	103,757	113,876	2,031	109,350	1,608	110,958
1972	1,940	3,906	3,500	106,399	115,745	1,671	111,839	1,258	113,097
1973	1,780	3,521	3,500	106,590	115,391	1,257	111,870	1,257	113,127
1974	1,703	1,459	3,500	107,287	113,949	1,137	112,490	1,137	113,627
1975	1,629	2,296	3,500	107,917	115,342	1,075	113,046	1,075	114,121
1976	505	478	3,500	111,334	116,817	1,013	116,339	1,013	117,352
1977 3/	1,400	2,340	3,500	111,697	118,937	1,017	116,597	1,017	117,614

Year	Per capita civilian disappearance 4/					Civilian consumption excluding donations from USDA supplies
	Consumed on farms 1/	USDA donations to civilian channels	National School Lunch and Special Milk Programs	Commercial sources	All sources	
	Pounds					
1955	70	19	9	608	706	687
1960	37	11	14	591	653	642
1965	20	19	17	564	620	601
1966	18	6	17	563	604	598
1967	16	16	17	532	581	565
1968	14	21	17	525	577	556
1969	13	23	17	516	569	546
1970	11	21	17	512	561	541
1971	10	22	17	508	558	536
1972	9	19	17	515	561	542
1973	9	17	17	512	554	537
1974	8	7	17	512	543	536
1975	8	11	17	510	546	535
1976	7	2	16	523	548	546
1977 3/	7	11	16	520	554	543

1/ Includes a small amount of farm-churned butter sold.
2/ Includes any quantities used by military in civilian feeding programs abroad.
3/ Preliminary.
4/ Aggregate in each category divided by total civilian population.

responded only slightly (figure 11). However, gains in lowfat and skim items have been sufficient to more than offset declines in whole milk usage; total fluid sales in major urban markets were up almost 1 percent from last year during August-October.

Larger Donations Hold Per Person Use

Per capita consumption of all dairy products (in terms of milk equivalent, fat solids basis) during 1977 probably will be slightly above 1976's 548 pounds. Although commercial use per person slipped from a year ago, larger government donations made up the difference. Even though considerably more products were available for domestic donation, current donation outlets could not utilize nearly as large quantities as in past years (table 10).

While per person use of milkfat this year was a little above the levels of the previous 2 years, per capita consumption of milk solids-not-fat slipped slightly (table 9). Lower use of nonfat dry milk without corresponding growth in use of whey products was primarily responsible.

Per capita consumption of cheese in 1977 could be up about a half pound from last year's 15.9 pounds, with about half the rise due to larger donations. Butter consumption, though, could be about the same per person as larger donations have offset smaller sales. Among other products, more lowfat fluid milk, ice milk, and cottage cheese is being used but per person use of fluid whole milk, canned milk, ice cream, and nonfat dry milk is slipping.

Per capita consumption in 1978 probably will be just slightly higher than this year. The increase in commercial use could be slightly larger than the growth in population. Even though government supplies will be large, domestic donations probably will not increase greatly, although some small rise is likely.

Commercial Stocks Trimmed

The combination of seasonally slackening milk output, sales to the Commodity Credit Corporation (CCC), and strengthening commercial use has allowed commercial firms to trim their stocks to comfortable levels. On November 1, commercial holdings of milkfat were down 15 percent from a year ago and about a fourth from July 1. Similarly, stocks of milk solids-not-fat in commercial hands were down 17 percent from last year and more than a fourth from August 1. The expectation of continued very heavy production of manufactured

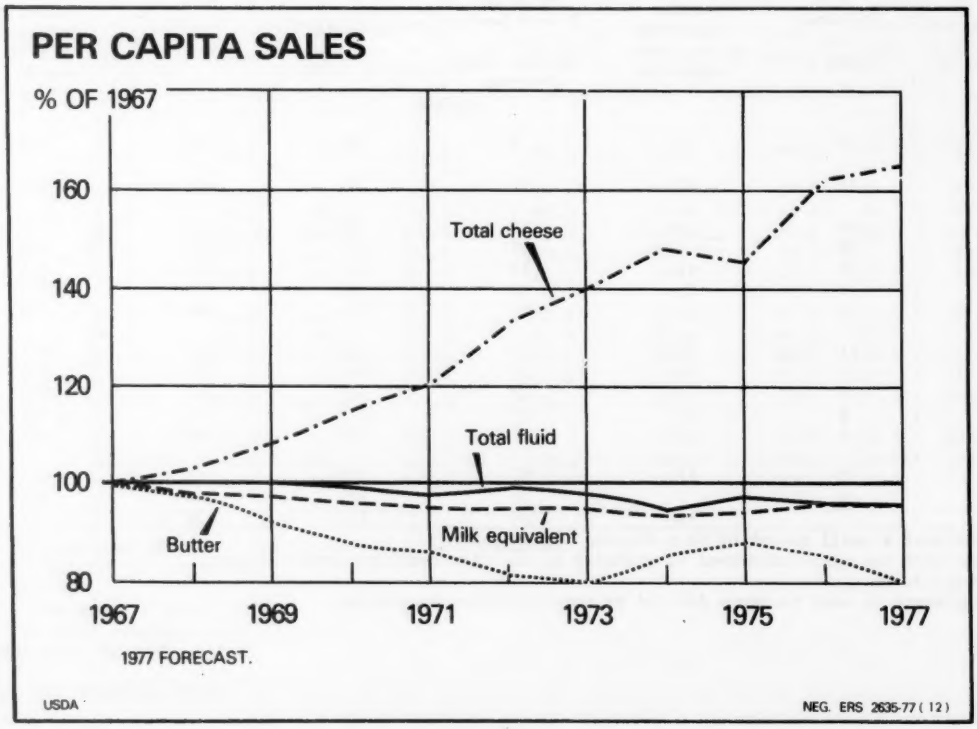


Figure 11

Table 11--Dairy products removed from the commercial market by programs of the U.S. Department of Agriculture, marketing years, 1960-77 1/

Marketing year beginning April 1	Removals 2/						Solids content of removals			
	Butter 3/	Cheddar cheese	Dry whole milk	Evaporated milk	Nonfat dry milk 4/	Milk equivalent	Milkfat	Solids-not-fat	As a percentage of marketings: Milkfat	As a percentage of marketings: Solids-not-fat
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Bil. lb.	Mil. lb.	Mil. lb.	--- Percent ---	
1960	154.4	0.3	---	---	837.3	3.3	130.2	804.9	3.0	8.6
1961	434.8	191.2	---	---	1,275.4	11.2	420.5	1,286.3	9.5	13.3
1962	346.9	134.4	---	---	1,303.0	8.8	331.6	1,294.8	7.5	13.2
1963	292.3	120.1	---	---	1,173.6	7.5	282.2	1,168.9	6.4	11.9
1964	316.5	134.3	---	---	1,223.0	8.2	306.6	1,221.0	6.9	12.2
1965	126.3	21.2	---	---	880.5	2.9	114.8	854.9	2.6	8.7
1966	109.2	39.9	---	---	421.0	2.7	103.6	418.4	2.4	4.4
1967	246.5	175.1	---	---	633.4	7.0	259.3	665.7	6.2	7.0
1968	186.4	66.9	---	54.9	555.9	4.8	179.8	567.1	4.4	6.0
1969	182.1	30.6	---	107.5	357.6	4.4	167.4	374.6	4.1	3.9
1970	305.4	56.8	---	79.0	452.3	7.2	273.5	469.9	6.6	4.9
1971	262.4	87.0	0.6	102.0	463.5	6.6	250.7	494.1	5.9	5.0
1972	220.2	20.1	1.5	81.2	259.9	5.0	192.4	274.1	4.5	2.8
1973	26.1	4.9	3.4	50.0	41.6	.7	27.7	53.2	.7	.6
1974	66.9	93.5	.9	33.7	393.6	2.4	89.6	414.8	2.2	4.3
1975	26.1	33.3	---	24.5	274.8	.9	35.6	279.3	.9	2.9
1976	114.9	96.9	---	16.5	186.4	3.4	126.3	213.3	2.9	2.1
1977 5/	134.4	87.4	---	9.7	347.0	3.7	139.5	363.8	---	---

1/ For earlier years see DS-335, May 1971, page 22. 2/ Delivery basis after domestic unrestricted sales. Includes purchases of butter, cheese, evaporated milk, and nonfat dry milk under Section 709 and section 4(a). 3/ Includes butter equivalent of anhydrous milkfat, and PIK purchases. 4/ Includes PIK certificates issued; beginning January 1972, also includes Title I exports originating from private stocks. 5/ April-September transition period.

Table 12--Net government expenditures on dairy support and related programs, fiscal years, 1950-77

Year beginning July 1	Net support purchases 1/	Military milk 2/	Section 32 3/	Sections 709 and 4(a) 4/	Export assistance 5/	Total (excluding special milk)	Special milk program 6/
			Million dollars				
1949-50	170.5	---	17.6	---	---	188.1	---
1950-51	7/-49.1	---	8/-.9	---	---	7/-50.0	---
1951-52	1.6	---	7.5	---	---	9.1	---
1952-53	274.9	---	25.1	---	---	300.0	---
1953-54	400.4	---	74.0	---	---	474.4	---
1954-55	228.7	4.3	24.4	---	---	257.4	22.2
1955-56	237.9	7.3	39.0	---	---	284.2	48.2
1956-57	239.1	16.4	75.6	---	---	331.1	61.0
1957-58	205.9	30.4	123.7	---	---	360.0	66.7
1958-59	102.1	23.0	106.2	---	---	231.3	74.7
1959-60	159.5	23.6	35.1	---	---	218.2	81.2
1960-61	173.9	25.3	82.1	---	---	281.3	87.0
1961-62	539.0	25.9	47.1	---	---	612.0	91.7
1962-63	454.0	24.8	---	---	6.7	485.5	93.7
1963-64	311.7	26.5	4.4	---	36.5	379.1	97.1
1964-65	157.2	26.2	105.6	---	44.7	333.7	86.5
1965-66	26.1	---	38.7	---	3.8	68.6	97.0
1966-67	283.9	---	.9	14.2	18.4	317.4	96.1
1967-68	357.1	---	---	---	7.1	364.2	103.1
1968-69	268.8	---	45.4	---	13.1	327.3	101.9
1969-70	168.6	---	107.1	7.8	7.4	290.9	102.9
1970-71	315.4	---	91.6	3.2	11.6	421.8	91.8
1971-72	267.0	---	63.9	---	7.3	338.2	93.6
1972-73	135.8	---	15.4	.1	1.5	152.8	90.8
1973-74	31.4	---	10.8	28.7	---	70.9	50.2
1974-75	485.8	---	6.5	3.8	---	496.1	122.9
1975-76	69.6	---	4.1	9/2.8	---	76.5	144.0
Transition quarter*	43.5	---	1.0	---	---	44.5	25.5
1976-77	709.8	---	4.5	---	---	714.3	109.7

1/ CCC support purchases and related costs (for processing, packaging, transporting and storing) of dairy products, less proceeds from sales to commercial buyers for domestic use and for export, U.S. military agencies, foreign government and private welfare agencies, and Section 32 programs.

2/ CCC reimbursements to U.S. military agencies, Veterans' Administration and other participants.

3/ Expenditures of Section 32 funds to buy dairy products in the market and from CCC for school lunch and welfare uses.

4/ Purchases of dairy products at market prices under Section 709 of the Food and Agriculture Act of 1965 and under Section 4(a) of the Agriculture and Consumer Protection Act of 1973, for domestic school lunch and welfare uses.

5/ Value of Payment-in-kind certificates issued by CCC on exports of nonfat dry milk, butter and other high-milkfat products, and CCC cost of exports under Title I, P.L. 480 of dairy products not originating in CCC stocks.

6/ Expenditures under the program to increase milk consumption by children in schools, child-care centers, and similar institutions.

7/ Net receipt due to sales exceeding purchases.

8/ Receipt due to adjustment.

9/ Purchases of evaporated milk.

* Start of fiscal year moved to October 1 in 1976.

SOURCE: Agricultural Stabilization and Conservation Service, USDA.

Table 13--USDA expenditures for dairy products, fiscal year ending September 30, 1977

Item	Value					Quantity		
	Butter and butter products	Cheese	Nonfat dry milk	Evaporated milk	Total	Butter and butter products	Cheese	Nonfat dry milk
	Million dollars					Million pounds		
CCC outlays								
Purchases	240.1	167.6	313.1		720.8	247.8	170.6	472.1
Storage, handling	2.3	0.7	4.7		7.7			
Transportation	3.6	3.0	6.2		12.8			
Processing, packaging	0.6	0.3	4.7		5.6			
Total carrying charges	6.5	4.0	15.6		26.1			
Total outlays	246.6	171.6	328.7		746.9			
Sales proceeds								
Dollar sales	1/	0.1	35.3		35.4	1/	1/	62.0
Donations - Schools & needy	52.1	69.8	13.5		135.4	52.5	71.2	19.6
P.L. 480, Title II	--	--	2/105.5		105.5	--	--	126.6
Other receipts	1/	0.1	1.4		1.5	0.1	1/	38.0
Total	52.1	70.0	155.7		277.8	52.6	71.2	246.2
Expenditures								
CCC net expenditures	194.5	101.6	173.0		469.1			
Section 32	--	--		4.5	4.5			
P.L. 480, Title II	--	--	105.3	--	105.3			
Donations - Schools & needy	52.1	69.8	13.5		135.4			
USDA net expenditures	246.6	171.4	291.8	4.5	714.3			

1/ Less than $50,000.
2/ Includes $17.7 million used in CSM.

Dairy product stocks

Item	Nov. 1, 1975	Nov. 1, 1976	Nov. 1, 1977
	Million pounds		
Commercial:			
Butter	15.4	57.4	39.0
American cheese	324.6	434.9	382.1
Other cheese	59.7	65.9	68.4
Nonfat dry milk	36.0	99.8	69.3
Milkfat	142.4	220.0	187.9
Solids-not-fat	167.8	279.9	232.3
Milk equivalent	4,114	6,288	5,375
Government:			
Butter	11.7	3.2	158.1
American cheese	9.0	.8	65.5
Nonfat dry milk	449.8	396.8	620.2
Milkfat	12.3	2.8	148.4
Solids-not-fat	435.5	382.0	616.9
Milk equivalent	330	74	3,911

products has reduced the demand for products in storage and the November 1 levels appeared to be in line with expected supply-demand conditions.

The general pattern held for all of the major dairy products except for other-than-American cheese and canned milk stocks, which were slightly above a year ago. Unlike earlier this year, commercial stocks of American cheese and nonfat dry milk are now fairly well in line with market needs.

During the first half of 1978, demand for seasonally rebuilding commercial stocks probably will be relatively typical, compared with 1977's weak demand for additional holdings. Flush season demand for products in storage will be heavily influenced by the industry's expectations of how long the heavy surplus conditions will persist.

USDA Purchases Expected Heavy

Although seasonally small in September-November, USDA purchases under the price support program have been heavy this year and substantial purchases probably will resume as milk supplies rise seasonally. During 1977, price support purchases will total more than 6.0 billion pounds milk equivalent, the most in any calendar year since 1971 and almost as much as the combined total of the 1973-76 period. During the fiscal year ended September 30, net Government expenditures on dairy price supports and related programs totaled $714 million (tables 12 and 13).

All 3 supported products have been bought in large quantities this year. Despite problems this spring and summer in clearing sufficient amounts of American cheese to CCC, purchases of cheese represented a much larger proportion of the surplus milk removed from the market than in earlier years. During 1970-72 (the last period of substantial surplus), almost 4 pounds of butter were bought for every 1 pound of cheese, compared with

USDA dairy purchases[1]

Item	January-November		
	1976	1977	Change
	Million pounds		*Percent*
Butter	19.5	222.3	([2])
American cheese	20.0	148.1	+640.5
Nonfat dry milk	139.5	444.0	+218.3
Evaporated milk	20.4	14.6	- 28.4
Milk equivalent	644	6,098	+846.9

[1] Deliveries minus unrestricted sales. [2] More than 1,000.

only 1½ pounds of butter per pound of cheese during January-November 1977. As the cheese industry has utilized increasing shares of the total milk supply, it has had to assume more of the burden of clearing surplus milk to CCC.

USDA purchased proportionately just slightly more nonfat dry milk than butter during January-November. The relatively close balance this year was in sharp contrast to 1975 and 1976, when powder purchases far outweighed butter purchases.

If the expected rise in milk output and no more than a modest increase in commercial use materialize in the coming year, USDA purchases could be as large or even larger than in 1977. Even if production weakens and sales spurt, purchases probably would be substantial through the first half of 1978.

CCC uncommitted inventories on December 1 were quite large, although butter and cheese holdings had seasonally been reduced slightly. Uncommitted inventories of both butter and cheese were the largest for that date since the 1960's while nonfat dry milk holdings were at a record high. By late next summer, these stocks probably will have grown considerably larger, as purchases once again exceed available donation outlets.

Uncommitted CCC stocks

Item	November 30	
	1976	1977
	Million pounds	
Butter (bulk)	27.0	154.9
American cheese	7.7	54.5
Nonfat dry milk	391.8	634.3

FOREIGN DAIRY TRADE AND TRENDS

Commercial Trade About Steady

Imports of all dairy products (milk equivalent) were up slightly from a year ago during August-October. Were it not for the disruption caused by

Table 14--Dairy products: U.S. imports, quota and non-quota, total 1976, and January-October, 1976-77 1/

Product	Calendar year quota	1976 imports	October			Cumulative, January-October		
			1976	1977	1977 as a % of 1976	1976	1977	1977 as a % of 1976
	Thou. lb.	Thou. lb.	Thou. lb.	Thou. lb.	Pct.	Thou. lb.	Thou. lb.	Pct.
Cheese, quota types								
American-Cheddar	10,037.5	7,984	209	898	430	1,595	6,027	378
-Other	6,096.6	6,196	120	2,207	3/	897	3,496	390
Italian-Original loaves	11,500.1	11,060	1,157	454	39	9,690	6,963	72
-Other	1,494.0	1,276	161	147	91	1,349	1,036	77
Edam and Gouda-Natural	9,200.4	8,524	732	258	35	6,074	5,437	90
-Processed	3,151.0	499	85	112	132	350	577	165
Blue Mold	5,017.0	4,593	280	276	99	3,010	2,611	87
Swiss-Emmenthaler, -$1.05 *	20,420.0	12,435	741	228	31	10,886	11,208	103
-Gruyere-process, -$1.05 *	11,242.0	8,690	891	782	88	5,329	6,023	113
Other-Over 0.5% fat, -$1.05 *	40,730.0	31,116	937	3,678	393	10,623	17,681	166
-Under 0.5% fat	8,901.0	4,741	319	---	---	3,529	3,482	99
Total	127,789.6	97,114	5,632	9,039	160	53,333	64,563	121
Cheese, non-quota types								
Swiss-Emmenthaler, $1.05 + *		48,499	4,309	4,091	95	39,448	37,544	95
-Gruyere-process, $1.05 + *		6,741	1,018	511	50	5,859	5,157	88
Other, $1.05 + *		34,405	4,202	2,303	55	26,960	26,074	97
Pecorino		16,728	1,272	1,408	111	12,785	13,886	109
Roquefort		1,560	158	166	105	1,287	1,391	108
Other 2/		2,053	148	187	126	1,613	2,149	133
Total		109,985	11,108	8,666	78	87,954	86,202	98
Other quota products								
Butter	707.0	528	42	180	429	450	670	149
Butteroil	1,200.0	1,200	---	---	---	1,200	1,200	100
Butterfat mixtures	2,580.0	2,468	372	---	---	2,278	2,393	105
Ice cream	3,377.3	373	---	---	---	---	3,187	---
Frozen cream	12,540.0	12,964	484	410	85	11,584	9,069	78
Nonfat dry milk	1,807.0	1,807	298	85	29	1,410	1,694	120
Dried buttermilk	496.0	444	80	---	---	287	179	62
Evaporated milk	1,312.0	28	---	42	---	28	44	157
Condensed milk	4,079.0	639	126	119	94	583	605	104
Chocolate crumb-Regular	17,000.0	9,246	1,626	---	---	8,026	4,373	54
-Lowfat	4,680.0	2,604	200	120	60	1,380	1,066	77
Animal feed with milk solids	16,300.0	12,226	991	---	---	8,776	9,707	111
Non-quota products								
Casein		112,141	7,755	10,026	129	86,659	122,373	141
Lactose		1,268	85	893	3/	862	2,866	332
Milk equivalent, fat solids basis total all products	1,305,620	1,942,714	151,272	159,620	106	1,368,297	1,442,077	105

1/ Preliminary. 2/ Gjetost, Bryndza, Gammelost and Noekkelost, and Goya. 3/ More than 1,000.
*Price break effective May 5, 1977.

the dock strike, imports might have been slightly larger. For the first 10 months of 1977, imports were equivalent to more than 1.4 billion pounds of milk, up 5 percent from last year (table 14).

Throughout the summer and early fall, less nonquota cheese than a year ago was imported, even though total cheese imports were generally slightly higher. The increase in the "pricebreak" level last spring evidently was enough to bring substantial quantities of those types of cheese under quota.

The calendar year quotas for other manufactured dairy products probably will be mostly filled in 1977, except for the canned milk and chocolate crumb quotas. Among nonquota items, casein imports have eased slightly but lactose imports were higher than earlier this year.

U.S. dairy trade
(milk equivalent)

Year and quarters	Imports		Exports	Shipments[1]
	Cheese	Other		
	Million pounds			
1976				
1st	310	114	132	140
2nd	302	71	145	129
3rd	389	30	124	136
4th	682	44	101	114
Year[2]	1,683	259	502	520
1977				
1st	343	140	107	123
2nd	315	51	116	170
3rd	418	14	138	142
Oct.	150	9	34	25

[1] To U.S. territories. [2] May not add due to rounding.

Despite a slight pickup in recent months, commercial exports of dairy products during January-October slightly trailed last year's level. More butter and cheese but less canned milk and dry whole milk was exported. The overseas market for our relatively high-priced dairy products has generally been quite small and has been slowly slipping in recent years.

More nonfat dry milk than a year earlier was exported during August-October—almost all of it donated under PL 480. Powder exports this year will be the most in any year since 1972 but will total much less than the quantity which was available for donation usage or the quantities exported in many earlier years.

Slightly more dairy products than last year were shipped to U.S. Territories during January-October. Increased amounts of dry whole milk and other-than-American cheese were responsible as less of other products was shipped.

Summer Milk Output Heavy in Europe

EC milk deliveries this summer were up about 8 percent from last year's drought-reduced levels and also well above 1975. The increases were quite widespread with Ireland and the United Kingdom posting especially large gains.

Elsewhere in West Europe, Austrian and Swedish milk production was heavier than last year but Finland and Switzerland produced less. Canadian milk output moved above a year earlier this summer as production restrictions were eased slightly. In New Zealand, feed supplies were good at the start of their new season but problems from fluctuating moisture conditions may trim their output from last year's record.

European cheese production continued to run well above 1976 this summer and butter-powder output also rose considerably above a year ago. Canada also produced substantially more of both butter and cheese. On the other hand, New Zealand is attempting to limit cheese output in their new season.

The increase in EC milk production has essentially been absorbed in commercial channels (aided by consumption subsidies). Cheese stocks have remained close to a year earlier while intervention stocks of butter have exceeded year-earlier levels by a fairly constant margin since last spring. Although rising more rapidly than last year, intervention stocks of nonfat dry milk were still below a year ago. Even though the intervention stock picture has not worsened with the heavy milk output, the more than 400 thousand metric tons of butter and over a million tons of nonfat dry milk on October 1 were still very large.

Table 15.--U.S. Dairy Situation at a Glance

Item	Unit or base period	1975	1976					1977		
		Oct.	Aug.	Sept.	Oct.	Nov.	Year	Aug.	Sept.	Oct.
Production and cow numbers:										
Total milk	Mil. lb.	9,186	10,112	9,616	9,643	9,233	120,356	10,410	9,907	9,902
Milk per cow	Lb.	827	916	872	874	836	10,893	949	903	903
Number of milk cows	Thou.	11,102	11,041	11,030	11,039	11,039	11,049	10,973	10,975	10,964
Prices received by farmers:										
All milk, sold to plants, 100 pounds	Dol.	9.70	9.70	9.84	9.96	9.89	9.66	9.69	10.00	10.20
Percentage of parity 1/	Pct.	81	83	80	80	78	80	78	77	77
Manufacturing grade milk, 100 pounds	Dol.	8.77	8.89	8.65	8.54	8.54	8.56	8.64	8.83	8.99
Parity equivalent	Dol.	9.64	10.25	10.25	10.16	10.16	10.18	10.93	10.93	10.93
Fat content	Pct.	3.76	3.53	3.63	3.77	3.83	3.65	3.54	3.64	3.77
Minnesota-Wisconsin (3.5% fat), 100 pounds	Dol.	8.60	8.99	8.46	8.26	8.26	8.48	8.64	8.74	8.74
Milk eligible for fluid market, 100 pounds	Dol.	9.91	9.91	10.10	10.30	10.20	9.93	9.94	10.30	10.40
Price ratios and dairy ration values:										
Milk-feed	Lb.	1.56	1.50	1.51	1.56	1.60	1.53	1.69	1.80	1.84
Manufacturing grade milk-hog	Lb.	.15	.21	.22	.26	.27	.20	.20	.22	.23
Manufacturing grade milk-beef cattle	Lb.	.26	.27	.27	.27	.27	.25	.25	.25	.25
Value of concentrate ration fed milk cows	Dol.	6.21	6.47	6.53	6.38	6.20	6.30	5.73	5.55	5.54
Farm cash receipts from dairy products	Mil. dol.	870	968	927	940	901	11,426	995	972	977
Production of factory products:										
Butter	Mil. lb.	68.2	65.1	64.0	78.1	77.6	978.6	78.2	75.5	84.9
American cheese, whole milk	Mil. lb.	120.0	178.2	155.6	151.3	146.8	2,062.4	162.7	142.8	145.2
Cheese, other than American	Mil. lb.	100.2	106.7	106.8	104.4	110.2	1,274.1	108.8	108.6	109.1
Canned milk, unskimmed	Mil. lb.	67.2	73.4	61.1	56.6	50.2	895.5	71.7	59.6	53.3
Dry whole milk	Mil. lb.	5.3	6.5	5.2	4.6	5.2	78.1	6.5	4.2	4.2
Frozen products 2/	Mil. gal.	91.7	115.5	103.5	82.8	76.3	1,152.7	121.9	105.0	85.4
Creamed cottage cheese	Mil. lb.	71.4	74.4	73.1	69.5	67.9	874.6	76.6	72.2	69.5
Total whole milk equivalent 3/	Mil. lb.	4,327	5,355	4,849	4,718	4,563	63,672	5,580	4,985	4,861
Nonfat dry milk, human use	Mil. lb.	45.2	76.2	56.1	56.5	53.9	926.2	100.6	78.4	71.5
Wholesale prices:										
Butter, Grade A, Chicago, pound	Ct.	93.0	106.2	92.4	90.8	90.8	92.0	100.7	100.7	100.7
Cheese, American (40-pound blocks), f.o.b. Wisconsin assembling points, pound	Ct.	99.0	106.2	98.1	93.3	92.9	96.3	97.1	98.3	98.3
Evaporated milk, case (mid-point of range)	Dol.	12.46	13.90	13.22	13.91	13.39	13.67	14.20	14.16	14.07
Dry whole milk, pound	Ct.	79.2	83.7	80.3	78.4	77.8	79.4	82.5	82.2	82.3
Nonfat dry milk, pound	Ct.	68.9	63.5	64.0	63.3	63.2	63.5	67.9	68.0	68.0
Dairy products and ice cream index (BLS)	1967=100	165.6	173.9	170.3	169.5	168.1	168.4	175.3	175.7	175.9
Retail prices (BLS):										
Milk, fresh, grocery, half-gallon	Ct.	78.7	82.0	82.9	84.3	83.7	82.7	84.2	84.1	84.5
Evaporated milk, 14½-ounce can	Ct.	31.0	34.3	34.5	34.7	34.9	34.3	36.9	37.2	37.2
Cheese, American, processed, sliced, ½-pound package	Ct.	80.6	86.2	87.7	88.2	87.4	86.5	86.7	86.6	87.2
Butter, pound	Ct.	114.6	133.2	135.0	131.0	128.9	126.1	135.3	136.1	136.5
Ice cream, half-gallon	Ct.	123.3	126.3	128.4	130.2	128.7	127.1	135.5	137.5	138.6
Dairy products index	1967=100	159.4	169.0	171.1	172.7	171.7	169.3	175.1	175.4	176.2
All foods index	1967=100	179.0	182.4	181.6	181.6	181.1	180.8	195.2	194.5	194.4
Margarine, colored, pound	Ct.	58.9	50.7	51.9	53.0	52.8	52.6	60.8	61.0	59.6
Stocks, end of month:										
Creamery butter	Mil. lb.	27.1	82.3	68.1	60.7	47.3	---	207.7	203.4	197.1
Cheese, total 4/	Mil. lb.	393.3	518.1	522.7	501.5	482.0	---	605.1	569.8	516.0
Canned milk, unskimmed	Mil. lb.	71.0	136.5	135.3	131.8	97.0	---	158.8	148.6	134.3
Dry whole milk	Mil. lb.	4.4	11.9	11.0	10.5	10.7	---	6.2	6.3	5.8
Total whole milk equivalent 5/	Mil. lb.	4,445	6,993	6,735	6,363	5,815	---	10,425	9,975	9,286
Nonfat dry milk	Mil. lb.	485.8	507.4	494.7	496.6	479.7	---	653.2	685.9	689.5
Commercial disappearance:										
Creamery butter	Mil. lb.	78.6	64.0	77.5	81.3	82.6	919.0	72.9	88.7	81.3
Cheese, American	Mil. lb.	153.2	168.9	150.7	172.0	162.7	1,934.5	151.3	169.4	201.4
Cheese, other than American	Mil. lb.	117.7	122.5	124.0	121.2	128.6	1,460.7	126.0	127.0	126.1
Canned milk, unskimmed	Mil. lb.	91.9	78.8	61.2	58.7	83.6	862.4	43.6	68.1	65.9
Milk in all products	Mil. lb.	9,693	9,889	9,744	9,822	9,470	116,402	10,037	10,466	10,311
Nonfat dry milk	Mil. lb.	62.7	68.4	60.5	52.2	45.2	724.0	57.6	60.9	64.5
USDA net removals:										
Butter	Mil. lb.	---	---	---	4.9	14.2	39.4	13.5	.3	7.0
Cheddar cheese	Mil. lb.	---	---	---	.4	8.7	38.0	24.0	2.9	1.4
Nonfat dry milk	Mil. lb.	-4.7	10.6	9.7	8.9	19.4	157.1	62.7	38.3	26.4
Evaporated milk	Mil. lb.	1.0	1.5	1.1	1.5	1.5	21.8	2.7	1.6	1.9
Total whole milk equivalent	Mil. lb.	2	3	2	108	383	1,236	533	39	162
Fluid sales, change from year earlier: 6/										
Whole milk	Pct.	-1.0	-3.2	-4.9	-4.2	-1.4	-2.8	-2.3	-2.4	-3.8
Low-fat and skim milk	Pct.	+9.3	+6.5	+7.4	+6.1	+8.8	+7.1	+7.1	+7.4	+6.0
Total fluid milk	Pct.	+2.2	-.1	-1.0	-.7	+2.0	+.2	+1.0	+1.1	-.3
Cream and cream mixtures	Pct.	+11.9	+4.2	+.1	-4.0	+5.1	+2.5	+3.4	-3.6	NA.

1/ Seasonally adjusted price as percentage of parity price.
2/ Ice cream, ice milk, and sherbet.
3/ Includes manufactured products for which current monthly series are available.
4/ Natural, plus process American cheese held by CCC.
5/ Excludes cream and bulk condensed milk.
6/ Daily average sales in Federal and State Marketing areas.
NA = Not available.

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